



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Federal-Mogul, Lake City, Minnesota

FROM: Gunnar Brown, Environmental Scientist/Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Federal-Mogul

Facility Location: 520 N 8th St, Lake City, MN

Date of Inspection: November 06, 2024

EPA Inspector(s):

1. Gunnar Brown, Environmental Scientist/Engineer
2. Charles Zeman, Physical Scientist

Other Attendees:

1. Ross Kohrs, Quality Manager and Acting EHS Manager – *Federal-Mogul*
2. Larry Johnson, EHS Lead – *Federal-Mogul*
3. Benjamin Meyer, Plant Manager – *Federal-Mogul*
4. Robert Schettler, Inspector – *Minnesota Pollution Control Agency (MPCA)*

Contact Email Address: Ross Kohrs (Federal-Mogul) - ross.kohrs@tenneco.com

Purpose of Inspection: Ensure compliance with the Clean Air Act (CAA) for iron foundry operations

Facility Type: Pig iron and shredded scrap steel foundry, with casting and machine shop, for automobile components.

Facility Name: Federal-Mogul
Facility Location: 520 N 8th St, Lake City, MN
Date of Inspection: November 6, 2024

Regulations Central to Inspection: 40 C.F.R. Part 63 Subpart ZZZZZ, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

Arrival Time: 10:30 am

Departure Time: 12:30 pm

Inspection Type:

- ☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Provided Small Business Resource Information Sheet. (Provided with Inspection Report)
☒ Provided CBI warning to facility
☐ Yes ☒ No. Was any information collected during the inspection claimed as CBI? The Facility stated that product specifications were CBI but no pictures were taken nor information recorded about this.

The following information was obtained verbally from Ross Kohrs, Larry Johnson, and Benjamin Meyer unless otherwise noted.

Company Ownership: The parent company, Tenneco, was acquired by Apollo Investment Group in November 2022. The facility is still doing business as Federal-Mogul.

Process Description:

Pig iron and shredded scrap steel are received via truck and stored prior to charging to the furnaces at Federal-Mogul's Lake City, MN location (the "Facility"). The pig iron and scrap metal are visually inspected for any other items in the storage piles for separation. Both materials come in pre-cleaned. Alloying materials such as copper, manganese, chromium, graphx, silicon, etc. are received in sacks or drums. The raw materials are transported to the induction furnaces. The molten iron from the induction furnaces is transported via monorail to casting equipment where a silicon based super seed inoculant is introduced right before the molten iron is poured into the casting tube. The casted iron will be cut and dry machined into the final product.

Staff Interview: The Facility has about 130 employees on site under Tenneco or Federal-Mogul. The operational hours are Monday through Friday, 24 hours per day for product creation and melting. The facility has personnel present year-round except for holidays. The Facility houses a total of 6 electric induction furnaces and operations are split into a Federal-Mogul side of the plant and a Tenneco side, the differentiation between Tenneco and Federal-Mogul is organizational/corporate.

The Facility divides operations into three separate casting lines. Casting Line 3 is self-contained within the Federal-Mogul side of the Facility with 1 dedicated furnace and is tapped about once per hour.

Casting Lines 1 and 2 receive molten metal from the other 5 furnaces on the Tenneco side of the Facility via ladle. Furnaces on the Tenneco side are tapped once every two hours. The facility does not operate all furnaces at the same time. The most furnaces active at one time are three furnaces. The most recent furnace installation was Furnace 3 in 2005 or 2006, which was installed without a Bag Leak Detection System (BLDS).

The facility's only active operations are grey cast iron, all other processes/operations have been closed down.

The facility uses baghouses to control for Particulate Matter (PM) emissions from all furnaces and casting lines. Baghouse CE019 controls Casting Line 3 (Furnace 4), Baghouse CE016 controls Casting Line 2, Baghouse CE015 controls Furnaces 1 – 3, and Baghouse CE017 controls Furnaces 5 and 6. The differential pressure for baghouses is monitored weekly using a Magnehelic and the baghouses have internal inspections quarterly. Method 22 to monitor opacity is conducted every six months and is submitted to MPCA.

The most recent stack tests were in 2021 and 2022 for PM. The Steelcraft baghouse connected to Casting Line 1 and three furnaces was tested in 2021. Casting Line 3, Machine Line 3 and 4, and Casting Line 2 were tested in two sets of stack tests in 2022.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

During the facility tour, EPA Inspectors observed emissions inside the facility from Furnace 3 seen in Photo 3. Photo 4 captures Furnace 3 during charging with an open lid. Emissions produced during the molding process uncaptured by the hood were released in the facility were captured in Photo 2. Facility staff indicated to EPA that this was steam used for cooling. Near to the molding process are large fans built into the wall that can blow air into or out of the facility. The fans were off at the time of inspection, but facility staff stated the fans are more often used during the summer.

EPA Inspectors observed a box labeled "Bag Leak Detection" near the Baghouse for Casting Line 3, Facility staff did not provide an explanation for its purpose or if it's in use.

EPA observed the following differential pressure readings while touring the Facility:

Baghouse	Differential Pressure (in. WC)
CE019	4.8
CE016	4.6
CE015	4.2
CE017	1.5

Photos and/or Videos: were taken during the inspection and are listed in Appendix A.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

1. Plant Diagram with labeled production lines, including all furnaces.
2. Itemized list of each emissions unit/production line with associated emissions control devices.
3. Records and information of material throughput for pig iron and scrap metal, including tons of metal charged to each furnace for the past 12 months.
4. All results and protocols of performance testing conducted within the last 5 years.
5. The maintenance plan for the baghouses/dust capture devices.
6. The Operations and Maintenance (O&M) plans for each of the facility's emission control devices (baghouses or dust collectors).
7. Differential Pressure readings/records for each of the baghouses for the last 3 years for the months of July and September.
8. Readings/records of the baghouse inlet temperatures for each of the baghouses for the last 3 years for the months of July and September.
9. All Semi-Annual Compliance Reports for the facility relating to air permit activities for the last 3 years.
10. Quarterly baghouse inspection reports for the past 3 years.
11. Operational, Maintenance, and Inspection documents for any bag leak detection system at the facility.
12. A description of the coating process used for casting molds including where emissions are routed and any control devices used to control emissions.
13. MSDS for any coating material used for casting molds.
14. The facility's most current and active air permit.

DIGITAL SIGNATURES

Report Author: **GUNNAR BROWN**

Digitally signed by GUNNAR BROWN
Date: 2024.12.18 11:47:21 -06'00'

Section Supervisor: **SARAH MARSHALL**

Digitally signed by SARAH MARSHALL
Date: 2024.12.18 12:24:41 -06'00'

APPENDICES

1. Appendix A: Digital Image Log and Digital Video Log

APPENDIX A: DIGITAL IMAGE LOG AND DIGITAL VIDEO LOG

Inspector Name: Gunnar Brown **Archival Record Location:** EPA ERC

Image Number	File Name	Date and Time (CST)	Description of Image
1	IMG_1699.JPG	11:39 11/06/24	Differential pressure gauge on Baghouse controlling Steelcraft
2	IMG_1700.JPG	11:51 11/06/24	Molding process with emissions not captured by hood
3	IMG_1701.JPG	12:02 11/06/24	Emissions from Furnace 3 operations
4	IMG_1702.JPG	12:03 11/06/24	Furnace line 3 with lid open during charging